

No.

200200086

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Minnesota Agricultural Experiment Station

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED, AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

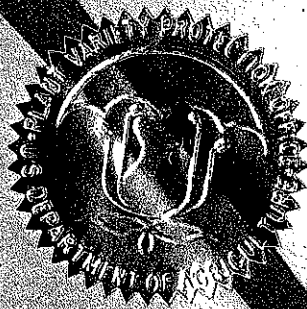
NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF

(64 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'MN0302'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this nineteenth day of July, in the year two thousand two.



*Alast.*  
*P. M. J. J.*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

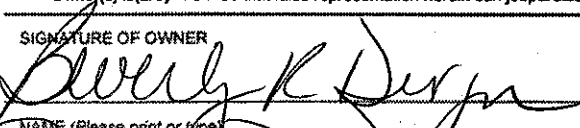
*Anderson*  
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

**APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE**  
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER Minnesota Agricultural Experiment Station University of Minnesota		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME M90-217007		3. VARIETY NAME MN0302	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 277 Coffey Hall 1420 Eckles Avenue St. Paul, MN 55108		5. TELEPHONE (Include area code) 612-625-9292		FOR OFFICIAL USE ONLY PVPO NUMBER <b>200200086</b>	
		6. FAX (Include area code) 612-625-1260			
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) University		8. IF INCORPORATED, GIVE STATE OF INCORPORATION		9. DATE OF INCORPORATION 01/29/02	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) J.H. Orf Department of Agronomy and Plant Genetics University of Minnesota 411 Borlaug Hall 1991 Upper Buford Circle St. Paul, MN 55108-6026				FILING AND EXAMINATION FEES: \$ 2,705.00 DATE 01/29/02 CERTIFICATION FEE: \$ 320.00 DATE 6/18/02	
11. TELEPHONE (Include area code) 612-625-8275		12. FAX (Include area code) 612-625-1268		13. E-MAIL orffx001@umn.edu	
14. CROP KIND (Common Name) soybean		15. GENUS AND SPECIES NAME OF CROP Glycine max		16. FAMILY NAME (Botanical) Leguminosae	
17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,705), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)			19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act <input checked="" type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input type="checkbox"/> NO (If "no", go to item 22)		
			20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? IF YES, WHICH CLASSES? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED		
			21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? IF YES, SPECIFY THE <input checked="" type="checkbox"/> 15 FOUNDATION <input checked="" type="checkbox"/> 1 REGISTERED <input checked="" type="checkbox"/> 2 CERTIFIED NUMBER 1,2,3, etc. (If additional explanation is necessary, please use the space indicated on the reverse.)		
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)			23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)		
24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF OWNER 			SIGNATURE OF OWNER		
NAME (Please print or type) Beverly R. Durn			NAME (Please print or type)		
CAPACITY OR TITLE Associate Dean		DATE 1/3/02		CAPACITY OR TITLE	
				DATE	

## INSTRUCTIONS

**GENERAL:** To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,705 (\$320 filing fee and \$2,385 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. **Retain one copy for your files.** All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

200200086

## ITEM

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
  - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (*See Regulations and Rules of Practice, Section 97.103.*)
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 
21. **CONTINUED FROM FRONT** (*Please provide a statement as to the limitation and sequence of generations that may be certified.*)  
Foundation seed is allowed to be produced from foundation seed. Under emergency situations, with permission of the owner, certified seed may be produced from certified seed.

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22. **CONTINUED FROM FRONT** (*Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.*)

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23. **CONTINUED FROM FRONT** (*Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).*)

**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (*See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.*)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089. <http://www.ams.usda.gov/lsg/seed/lsg-sd.htm>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

S&T-470 (04-01) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (02-99) which is obsolete.

**Exhibit A****Statement of Distinctiveness****Origin and Breeding History of MN0302 Soybean**

'MN0302' soybean traces to the  $F_5$  progeny of an  $F_4$  plant harvested from a population that had been advanced by a modified single seed descent procedure from the cross M84-93 x Archer. The pedigree of M84-93 is M71-148 x Ozzie. M71-148 is a selection from the cross Clay x Evans. Bulk seed of the  $F_5$  row was designated M90-217007 and was used for yield testing in the  $F_6$  (1994). Subsequent tests of strain M90-217007 were conducted in Minnesota in the  $F_7$  (1995) and  $F_8$  (1996). In the  $F_8$  generation 50 typical plants were harvested individually to initiate purification for desirable traits including reaction to race 7 of phytophthora root rot. In the  $F_9$  (1997) M90-217007 was entered in the Uniform Regional Soybean Test Maturity Group O. In 1997 twenty-nine rows were grown for purification purposes. Fourteen rows appeared uniform for plant and seed characteristics including reaction to race 7 of phytophthora root rot, therefore these rows were bulked to provide breeder's seed. In the  $F_{10}$  (1998),  $F_{11}$  (1999),  $F_{12}$  (2000) M90-217007 continued to be tested in the Uniform Regional Soybean Test Maturity Group O. In the  $F_{10}$  (1998) a small increase of breeder's seed was made. In the  $F_{11}$  (1999) Foundation Seed was produced by the Minnesota Foundation Seed Organization. In 2000 Foundation Seed was made available to other states for seed increase. In the  $F_{12}$  (2000) seed was increased and M90-217007 was approved for release as MN0302. On January 20, 2001 seed of MN0302 was released to Minnesota growers. No off types were noted in the seed multiplication process of MN0302 over three generations. The variety breeds true and meets certification standards.

**Exhibit B****Statement of Distinctiveness**

'MN0302' soybean is most similar to 'MN0301' soybean. MN0302 is approximately the same maturity as MN0301. The yield of MN0302 is about 8% greater than MN0301. MN0302 is about 1 inch taller than MN0301. MN0302 has a better lodging score than MN0301 (1.2 vs. 1.5). Seed of MN0302 is similar in size to MN0301. MN0302 has about 1.3 percent higher protein content and 0.7 percent lower oil content compared to MN0301. Seed of MN0302 has buff hila while seed of MN0301 has yellow hila. MN0302 has tan pods while MN0301 has brown pods. MN0302 carries the *Rps1k* gene for phytophthora root rot. This is based on a resistant reaction to phytophthora races 1, 3, and 7 during screening and the presence of the *Rps1k* gene in one of the parents, Archer. MN0301 carries the *Rps1* gene for phytophthora root rot. This is based on a resistant reaction to race 1 and susceptible reactions to races 3 and 7 and the presence of the *Rps1* gene in its parents. The iron deficiency chlorosis score for MN0302 is better than MN0301 (2.5 vs 3.2).

Data comparing MN0302 is taken from University of Minnesota Tests 1998-2000 (9 tests).

Variety	Date Mature	Yield bu/ac	Height (inches)	Lodging Score	Seed Size g/100	Protein %	Oil %	Chlorosis Score
MN0302	9/16	46.1	31	1.2	15.6	34.2	18.2	2.5
MN0301	9/16	42.4	30	1.5	15.7	32.9	18.9	3.2

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-0055

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

EXHIBIT C  
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY  
SOYBEAN (*Glycine max* (L.) Merr.)

NAME OF APPLICANT(S)	FOR OFFICIAL USE ONLY
Minnesota Agricultural Experiment Station-University of Minnesota	PVPO NUMBER
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)	200200086
277 Coffey Hall	VARIETY NAME
1420 Eckles Avenue	MN0302
St. Paul, MN 55108	TEMPORARY OR EXPERIMENTAL DESIGNATION
	M90-217007

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in the first box (e.g. 

9	9	9
---	---	---

 or 

0	9
---	---

) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used:

Please answer all questions for your variety; lack of response may delay progress of your application.

A. MORPHOLOGY

Seed Shape:

- |  |   |  |
|--|---|--|
| <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>2</td></tr></table> | 2 | <p>1 = Spherical<br/>(L/W, L/T, and T/W ratios &lt; 1.2)</p> <p>2 = Spherical-Flattened<br/>(L/W ratio &gt; 1.2; L/T ratio &lt; 1.2)</p> <p>3 = Elongate<br/>(L/T ratio &gt; 1.2; T/W ratio &lt; 1.2)</p> <p>4 = Elongate-Flattened<br/>(L/T ratio &gt; 1.2; T/W ratio &gt; 1.2)</p> |
| 2  |   |  |

Seed Coat Color:

- |  |   |  |
|--|---|--|
| <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>1</td></tr></table> | 1 | <p>1 = Yellow      2 = Green      3 = Brown      4 = Black      5 = Other<br/>(Please Specify) _____</p> |
| 1  |   |  |

Seed Coat Luster:

- |  |   |                                |
|--|---|--------------------------------|
| <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>1</td></tr></table> | 1 | <p>1 = Dull      2 = Shiny</p> |
| 1  |   |                                |

Seed Size:

- |  |   |   |                 |
|--|---|---|-----------------|
| <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>1</td><td>6</td></tr></table> | 1 | 6 | grams/100 seeds |
| 1  | 6 |   |                 |

Hilum Color:

- |  |   |   |
|--|---|---|
| <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>1</td></tr></table> | 1 | <p>1 = Buff      2 = Yellow      3 = Brown      4 = Gray      5 = Imperfect Black<br/>6 = Black      7 = Other (Please Specify) _____</p> |
| 1  |   |   |

# A. MORPHOLOGY (Continued)

200200086

## Cotyledon Color:

☐ 1 = Yellow      2 = Green

## Seed Protein Peroxidase Activity:

☐ 1 = Low      2 = High

## Hypocotyl Color:

☐ 1 = Green      2 = Green with Bronze      3 = Light Purple      4 = Dark Purple extending to  
( 'Evans' or 'Davis' ) Bands below Cotyledon below Cotyledons unifoliolate leaves ( 'Hodgson',  
( 'Woodworth' or 'Tracy' ) ( 'Beeson' or 'Pickett 71' ) 'Coker', or 'Hampton 266A' )

## Leaf Shape:

☐ 1 = Lanceolate      2 = Oval      3 = Ovate      4 = Other (Please Specify) \_\_\_\_\_

## Flower Color:

☐ 1 = White      2 = Purple      3 = White with a Purple Throat

## Pod Color:

☐ 1 = Tan      2 = Brown      3 = Black

## Pubescence Color:

☐ 1 = Gray      2 = Brown (Tawny)      3 = Light Tawny

## Plant Habit:

☐ 1 = Determinate      2 = Semi - Determinate      3 = Indeterminate      4 = Intermediate

## Maturity Group:

<input type="checkbox"/> 0	<input type="checkbox"/> 3	1 = 000	2 = 00	3 = 0	4 = I	5 = II
		6 = III	7 = IV	8 = V	9 = VI	10 = VII
		11 = VIII	12 = IX	13 = X	14 = XI	15 = XII

## Maturity Subgroup:

☐ 3 Please enter a value from 0 - 9

## B. DISEASE REACTIONS

0 = Not Tested      1 = Susceptible      2 = Resistant      3 = Tolerant

### Bacterial

☐ 0 Bacterial Pustule (*Xanthomonas campestris* pv. *glycines* (Nakano) Dye)

☐ 0 Bacterial Blight (*Pseudomonas syringae* pv. *glycinea* (Coerper) Young, Dye, & Wilkie)

☐ 0 Wildfire Blight (*Pseudomonas syringae* pv. *tabaci* (Wolf & Foster) Young, Dye, & Wilkie)

B. DISEASE REACTIONS (Continued) 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant

## Fungal

Brown Spot (*Septoria glycines* Hemmi)

Frogeye Leaf Spot (*Cercospora sojina* Hara)

<input type="text" value="0"/>	race 1	<input type="text" value="0"/>	race 2	<input type="text" value="0"/>	race 3	<input type="text" value="0"/>	race 4
<input type="text" value="0"/>	race 5	<input type="text" value="0"/>	race 6	<input type="text" value="0"/>	Other (Please Specify) _____		

Target Spot (*Corynespora cassiicola* (Berk. & Curt.) Wei)

Downey Mildew (*Peronospora trifoliorum* var. *manchurica* (Naum.) Syd. ex Gäum)

Powdery Mildew (*Microsphaera diffusa* Cke. & Pk.)

Brown Stem Rot (*Phialophora gregata* (Allington & Chamberlain) W. Gams.)

Stem Canker (*Diaporthe phaseolorum* (Cke. & Ell.) Sacc. var. *caulivora* Athow & Caldwell)

Pod and Stem Blight (*Diaporthe phaseolorum* (Cke. & Ell.) Sacc. var. *sojae* (Lehman) Wehm.)

Purple Seed Stain (*Cercospora kikuchii* (T. Matsu. & Tomoyasu) Gardener)

Rhizoctonia Root Rot (*Rhizoctonia solani* Kühn)

Phytophthora Root Rot (*Phytophthora megasperma* Drechs. f. sp. *glycinea* (Kuan & Erwin))

<input type="text" value="2"/>	race 1	<input type="text" value="0"/>	race 8	<input type="text" value="0"/>	race 15	<input type="text" value="0"/>	race 22
<input type="text" value="0"/>	race 2	<input type="text" value="0"/>	race 9	<input type="text" value="0"/>	race 16	<input type="text" value="0"/>	race 23
<input type="text" value="2"/>	race 3	<input type="text" value="0"/>	race 10	<input type="text" value="0"/>	race 17	<input type="text" value="0"/>	race 24
<input type="text" value="0"/>	race 4	<input type="text" value="0"/>	race 11	<input type="text" value="0"/>	race 18	<input type="text" value="0"/>	race 25
<input type="text" value="0"/>	race 5	<input type="text" value="0"/>	race 12	<input type="text" value="0"/>	race 19	<input type="text" value="0"/>	race 26
<input type="text" value="0"/>	race 6	<input type="text" value="0"/>	race 13	<input type="text" value="0"/>	race 20	<input type="text" value="0"/>	Other (Please Specify) _____
<input type="text" value="2"/>	race 7	<input type="text" value="0"/>	race 14	<input type="text" value="0"/>	race 21		

Bud Blight (Tobacco Ringspot Virus)

Yellow Mosaic (Bean Yellow Mosaic Virus)



**B. DISEASE REACTIONS (Continued)**      0 = Not Tested      1 = Susceptible      2 = Resistant      3 = Tolerant

Cowpea Mosaic (Cowpea Chlorotic Virus)

Pod Mottle (Bean Pod Mottle Virus)

Seed Mottle (Soybean Mosaic Virus)

**Nematode**

**Soybean Cyst Nematode (*Heterodera glycines* Ichinohe)**

<input type="text" value="0"/> race 1	<input type="text" value="0"/> race 4	<input type="text" value="0"/> race 9
<input type="text" value="0"/> race 2	<input type="text" value="0"/> race 5	<input type="text" value="0"/> race 14
<input type="text" value="0"/> race 3	<input type="text" value="0"/> race 6	Other (Please Specify) _____

Lance Nematode (*Hoplolaimus columbus* Sher)

Southern Root Knot Nematode (*Meloidogyne incognita* (Kofoid & White) Chitwood)

Northern Root Knot Nematode (*Meloidogyne hapla* Chitwood)

Peanut Root Knot Nematode (*Meloidogyne arenaria* (Neal) Chitwood)

Reniform Nematode (*Rotylenchus reniformus* Linwood & Olivera)

Javanese Nematode (*Meloidogyne javanica* (Treub) Chitwood)

Other Nematode (Please Specify) \_\_\_\_\_

**C. PHYSIOLOGICAL RESPONSES**      0 = Not Tested      1 = Susceptible      2 = Resistant      3 = Tolerant

Iron Chlorosis on Calcareous Soil

Phosphorus       Other (Please Specify) \_\_\_\_\_

Boron

Aluminum

Salt

Drought

**D. INSECT REACTIONS**

0 = Not Tested

1 = Susceptible

2 = Resistant

3 = Tolerant

Mexican Bean Beetle (*Epilachna varivestis* Mulsant)Potato Leaf Hopper (*Empoasca fabae* (Harris))

Other (Please Specify) \_\_\_\_\_

**E. HERBICIDE REACTIONS**

0 = Not Tested

1 = Susceptible

2 = Resistant

Metribuzin

Bentazone

Sulfonylurea

Glyphosate

Glufosinate

Pendimethalin

Other (Please Specify) \_\_\_\_\_

**F. TRANSGENIC COMPOSITION**

Has the development of the subject variety included the insertion of genetic material from an organism other than a soybean, or, the removal of genetic material from the application variety?

If yes, please complete the following information requests\*. Use additional pages if necessary.

☐

YES

☒

NO

1. Please state the vector's name:

2. Please state the vector components:

3. Please describe the genetic material successfully transferred into the subject variety:

4. Please describe the insertion protocol:

\* A literature citation(s) explaining the four information requests above may be an acceptable alternative to completion of the "Transgenic Composition" portion of this form.

**G. BIOCHEMICAL MARKERS**

Please describe any biochemical information here, which you believe will be helpful in further describing the subject variety (e.g. Simple Sequence Repeats, Restriction Fragment Length Polymorphisms, Isozymic Characterization). Use additional pages if necessary.

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

## EXHIBIT E

## STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) Minnesota Agricultural Experiment Station University of Minnesota	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER M90-217007	3. VARIETY NAME MN0302
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP and Country) 277 Coffey Hall 1420 Eckles Avenue St. Paul, MN 55108	5. TELEPHONE (include area code) 612-625-9292	6. FAX (include area code) 612-625-1260
7. PVPO NUMBER <b>200200086</b>		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain

☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. National or a U.S. based company? If no, give name of country

☒ YES ☐ NO
10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (if needed, use the reverse for extra space):

The University of Minnesota is the employer of the breeder who developed MN0302.

## PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 6 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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